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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,091	04/16/2004	Mutsuyuki Kawaguchi	10873.1436US01	9240

7590 06/21/2006

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EXAMINER
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LAVILLA, MICHAEL E

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/826,091

**Applicant(s)**

KAWAGUCHI ET AL.

**Examiner**

Michael La Villa

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5,8,10,12,13 and 20-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,8,12,20-22,24 and 25 is/are rejected.
- 7) ☒ Claim(s) 4, 10, 13, 23, 26, and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 26 and 27 are objected to because of the following informalities:

Regarding Claim 26, the word "accelerator" is misspelled. Regarding Claim 27, the word "propylene" is misspelled. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
  1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 1-3, 5, 8, 12, 20-22, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuoka JP 57-067191. Fukuoka teaches a bath for making a Sn/Co alloy plating film, wherein the bath is comprised of tin chloride or tin sulfate, cobalt sulfate, conductive salt, tartaric acid, and glycol ether. Fukuoka suggests relative amounts of each ingredient that are effective for making alloy

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plating film. These relative amounts are encompassed by the claimed relative amounts. See Fukuoka (Abstract; Tables 1-11; and bottom of page 457).

Fukuoka teaches using glycol ether and exemplifies certain compounds at the bottom of page 457. These compounds are identified with the claimed glycol diffusion retaining solvent, as the claimed glycol diffusion retaining solvent materials may be fairly interpreted to encompass glycol ether compounds.

Fukuoka teaches using conductive salts, such as KCl or NaCl, which are identified with the claimed reaction accelerator. While these compounds may not share some of the desired characteristics possessed by applicant's identified preferred reaction accelerator compounds, as identified at page 5, lines 18-28 of applicant's Specification, the presence of these materials in the composition of Fukuoka would be expected to facilitate reaction, meeting the claimed requirement. Applicant has not argued that applicant has provided a categorical definition of the phrase "reaction accelerator" which necessarily precludes encompassing these compounds from its scope. Fukuoka may not exemplify using organic acid, but teaches that tartaric acid is effective in place of salts of tartaric acid. It would have been obvious to one of ordinary skill in the art at the time of the invention to use tartaric acid in the composition of Fukuoka as Fukuoka teaches that its presence is effective. Fukuoka may not exemplify solutions having the claimed relative amounts of various ingredients, but does suggest solutions having the claimed relative amounts of various ingredients as being effective for forming an alloy coating. It would have been obvious to one of

ordinary skill in the art at the time of the invention to formulate solutions with the suggested relative amounts, which would be encompassed by the relative claimed amounts, since these suggested relative amounts are expected to be effective in making alloy coatings.

***Allowable Subject Matter***

5. Claims 4, 10, 13, 23, 26, and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Amendment***

6. Finality of the Final Rejection mailed on 3 March 2006 is WITHDRAWN in view of the newly presented prior art rejection set forth above.
7. A translation of JP 57-06719 has been ordered from Translations Branch.
8. In view of applicant's amendments, the section 102 rejection over Tsuji and the section 103 rejection over Tsuji of the Office Action mailed on 3 March 2006 have been overcome, and so these rejections are withdrawn.

***Conclusion***


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael La Villa whose telephone number is (571) 272-1539. The examiner can normally be reached on Monday through Friday.
10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael La Villa  
16 June 2006

  
MICHAEL E. LAVILLA PH.D.  
PRIMARY EXAMINER